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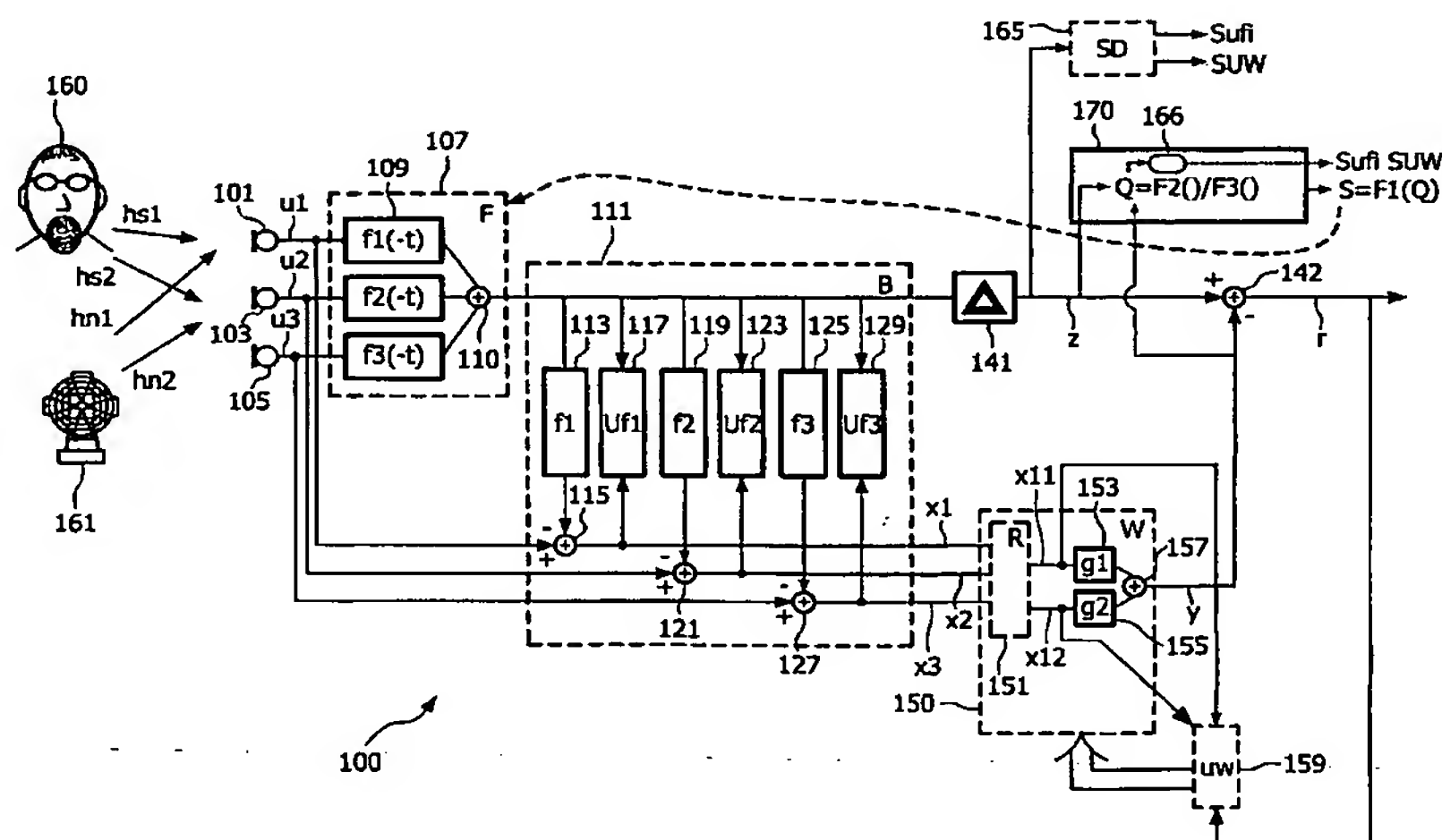
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[Continued on next page]

(54) Title: **ADAPTIVE BEAMFORMER WITH ROBUSTNESS AGAINST UNCORRELATED NOISE**



(57) Abstract: The relatively robust adaptive beamformer, comprises: a filtered sum beamformer (107) to process input audio signals (u1, u2, u3) from an array of respective microphones (101, 103, 105), and arranged to yield as an output a first audio signal (z) predominantly corresponding to sound from a desired audio source (160); and a noise estimation e.g. when incorporated in a sidelobe canceller topology an adaptive noise estimator (150), arranged to derive a noise signal (y) which is subtracted from the first audio signal (z) to obtain a noise cleaned second audio signal (r), and further comprises a scaling factor determining unit (170) arranged to provide a scale factor (S) as a function of a ratio (Q) of the sidelobe canceling, and being arranged to scale the adaptation step size with the scale factor (S), so that the sidelobe canceller only adapts quickly if it is relatively well locked on the desired audio source, but is rather insensitive to interference from noise sources.



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